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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,136	01/08/2001	Winston Way	26084-709	4981
20985	7590	07/27/2005	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			LI, SHI K	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/755,136

Applicant(s)

WAY, WINSTON

Examiner

Shi K. Li

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 March 2005.  
 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23,31-34,49-55 and 63-68 is/are pending in the application.  
     4a) Of the above claim(s) 6-22 and 52-55 is/are withdrawn from consideration.  
 5) ☒ Claim(s) 31-34,49-51,63,65,66 and 68 is/are allowed.  
 6) ☒ Claim(s) 1-5,13-15,23,64 and 67 is/are rejected.  
 7) ☒ Claim(s) 11 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 64 and 67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 64 recites the limitation "wherein the new WDM channel and the selected WDM channel are at a same WDM channel frequency" in lines 1-3 of the claim. However, the word "new" means "being other than the former or old". This contradicts the limitation that the new WDM channel and the selected WDM channel are at a same WDM channel frequency. Therefore, it is unclear whether the so-called "new" WDM channel is actually new or not.

Claim 67 recites the limitation "place the new WDM channel at the same WDM channel frequency as the selected WDM channel" in lines 2-4 of the claim. However, the word "new" means "being other than the former or old". This contradicts the limitation that the new WDM channel and the selected WDM channel are at the same WDM channel frequency. Therefore, it is unclear whether the so-called "new" WDM channel is actually new or not.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 13-15 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sotom et al. (U.S. Patent 5,896,212) in view of ITU G.692 (ITU-T Recommendation G.692, "Optical Interfaces for Multichannel Systems with Optical Amplifiers", October 1998).

Regarding claims 1, 4, 13, 15 and 23, Sotom et al. discloses in FIG. 4 a network controller for receiving an input signal  $E_m$  comprising a plurality of packets. Each packet consists of two parts, the message part is in wavelength  $\lambda_i$  and the control part is in wavelength  $\lambda_c$ . The controller converts the message part from wavelength  $\lambda_i$  to wavelength  $\lambda_j$  where  $\lambda_j$  is equivalent to wavelength buffer of instant claim. The controller modifies the control part via control unit and combines the converted message part and the control part, together with other wavelength channels, to form a WDM signal  $S_m$  for transmission to the output.

The difference between Sotom et al. and the claimed invention is that Sotom et al. does not teach that the wavelength channels are within an ITU WDM windows. ITU-T G.692 defines in ANNEX A, ANNEX B and APPENDIX III and APPENDIX IV WDM channel wavelengths.

One of ordinary skill in the art would have been motivated to combine teaching of ITU-T G.692 with the network controller of Sotom et al. because confirming to ITU standards provides compatibility with other network facilities. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use wavelength channels within ITU WDM windows, as taught by ITU-T G.692, in the network controller of Sotom et al. because confirming to ITU standards provides compatibility with other network facilities.

Regarding claim 2, Sotom et al. teaches in FIG. 3 a node  $N_i$  which transmits packet and reserves the wavelength buffer by indicating the destination address of the packet.

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Regarding claims 3 and 14, it is understood that node  $N_i$  sends a plurality of packets over time and these packets are received by the network controller.

Regarding claim 5, Sotom et al. teaches in FIG. 4 that the control information is carried within the input signal in wavelength channel  $\lambda_c$  while the data information is carried within the input signal in wavelength channel  $\lambda_i$ , which is different from  $\lambda_c$ . The modified control information is carried within the output signal in  $\lambda_c$  while the data information is carried within the output signal in  $\lambda_j$ , which is different from  $\lambda_c$ .

***Allowable Subject Matter***

5. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 31-34, 49-51, 63, 65-66 and 68 are allowed.

***Response to Arguments***

7. Applicant's arguments filed 18 March 2005 have been fully considered but they are not persuasive.

Regarding claims 10 and 20, and claims 52-55 that depend on either claim 10 or claim 20, they are drawn to a nonelected species and are withdrawn from further consideration pursuant to 37 CFR 1.142(b).

Regarding claim 23, the Applicant argues that Sotom does not disclose or suggest a buffer WDM channel. The Examiner disagrees. Sotom et al. teaches in FIG. 4 to convert a data packet into a wavelength corresponding to the receiving wavelength of a destination node. The

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wavelength channel into which the received packet is converted corresponds to the buffer wavelength channel of the instant claim.

The Applicant argues that the combined teaching of Sotom and ITU-T G.692 is silent on the limitation "converting payload data carried in one input WDM channel to the buffer WDM channel to leave the one input WDM channel available for carrying different data". The Examiner disagrees. Sotom et al. teaches in FIG. 4 to convert a data packet from one WDM channel to a WDM channel corresponding to the destination of the data packet, which is equivalent to the buffer channel of instant claim. This leaves the WDM channel originally occupied by the data packet available for carrying other data packet.

The Applicant argues that Sotom and ITU-T G.692 do not disclose or suggest limitations "modifying the label information to produce modified label information to reflect the conversion of the payload data from the one input WDM channel to the buffer WDM channel" and "re-combining the modified label information with the payload carried by the WDM channels to product an output optical signal including the payload and the modified label information". The Examiner disagrees. Sotom et al. teaches in FIG. 4 to modify the control information carried by wavelength channel  $\lambda_c$  and combine the modified control information with the payload carried by WDM channels via multiplexer 18.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 571 272-3031. The examiner can normally be reached on Monday-Friday (8:30 a.m. - 5:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

skl  
22 July 2005

  
JASON CHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600